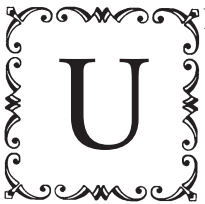


Public Attitudes about Underage Drinking Policies: Results from a National Survey

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INTRODUCTION

NDERAGE drinking increases the risk of many health and social problems, including automobile accidents, unintentional injuries, suicide attempts, alcohol poisonings, criminal behavior, risky sexual behavior, academic difficulties, alcoholism, drug abuse and illness (1). The social and monetary costs to society of underage drinking that result from these consequences (and from the costs of prevention and treatment efforts) are staggering (2).

In 2001, nearly one out of every two high school students in the United States (47.1%) reported drinking alcohol in the past 30 days and approximately one in three students (29.9%) engaged in episodic heavy drinking (3). Among college students, alcohol use rates are even higher, with more than two-thirds (69.6%) of the full-time student population reporting past 30-day alcohol use and approximately 40% reporting episodic heavy drinking (4). These high drinking rates and the serious consequences and steep costs associated with underage drinking (2,5) prompted us to raise questions about how the general public views underage drinking and what they are willing to do about it.

Numerous national and local policies and regulations in the United States aim to reduce alcohol consumption by those who are not of the legal drinking age (6). Some policies are aimed at reducing the demand for alcohol among underage drinkers—primarily through prevention and treatment, but most policies seek to limit youth access to alcohol by increasing alcohol taxes, reducing commercial availability, reducing social/public availability, and restricting youth possession of alcohol (6,7,8).

Certain policies (e.g., minimum drinking age laws, increased alcohol taxes, and lowered permissible blood alcohol content levels) have shown promise in reducing underage drinking and its associated problems (9–13). However, because in the United States individual states have primary authority over sale and access to alcoholic beverages (14), the policies and how they are implemented and enforced vary substantially among states and communities. This lack of uniformity, as well as the tendency of some of the policies to interfere with adults' ready access to alcohol, may contribute to less acceptance and controversy.

Although most adults share a common social and public health goal of curtailing underage drinking, several conflicts of interest may stand in the way of the public's wholesale acceptance of such alcohol control policies. First, the alcohol industry has a vested interest in maintaining underage drinking because approximately 20% of the alcohol consumed in the United States—accounting for approximately \$22.5 billion in sales in 1999—is consumed by underage drinkers (5). Second, because many adults used alcohol when they were younger, they may not be convinced of the harms of underage drinking or they may see it as a normal “rite of passage.” Finally, some policies that restrict underage drinking also impede adults' access to alcohol (15). Surveys have shown that underage drinking policies that restrict commercial sales specifically to minors tend to receive substantial public support, whereas less support is given to policies that attempt to control youth access to alcohol in ways that may interfere with adults' access (7), such as banning happy hours or beer keg sales (16).

Recently, the Board on Children, Youth, and Families of the National Research Council and the Institute of Medicine (IOM) released a report that reviews several interventions and lays out an extensive strategy to help curb underage drinking (8). The IOM's policy strategy emphasizes the need to develop a societal commitment to end underage drinking; this includes a partnership between parents and other adults, schools, communities, the entertainment media, the alcohol industry, and young people themselves. The emphasis on broadening the intervention focus to society at large, rather than primarily targeting youth, suggests the utility of assessment of the adult public's attitudes about underage drinking and the various means of curtailing it. The ease with which societal change can be achieved will depend largely on the extent to which the public is ready and willing to accept, and participate in, such change.

Adults of different backgrounds, beliefs, and experiences hold different attitudes toward underage drinking and attempts to control it (17). Understanding the nuances of public opinion about the problem of underage drinking and potential strategies for reducing it is imperative if policymakers are to garner public support for efforts to curtail the problem.

Several studies have examined public opinion about various strategies aimed at reducing underage drinking. Wagenaar and his colleagues at the Alcohol Epidemiology Program of the University of Minnesota conducted comprehensive surveys (9,16). They used a nationally representative sample of adults (ages 18 and older) and examined public attitudes toward several alcohol control policies, as well as personal attributes that may influence these attitudes, such as socio-demographic characteristics, political orientation, and personal alcohol use patterns. They demonstrated strong public support for most policy initiatives and, with minor differences, this strong support was generally found across demographic groups and among individuals with different political orientations and affiliations.

The aim of our study was to extend the findings of these surveys by collecting new national data, including two new key dimensions. First, to determine whether and to what extent public support for an alcohol control policy might vary depending on the specific details of the policy and how the option is framed, we divided the sample into three groups, each receiving a slightly different version of each policy option. Second, if respondents reported not being in favor of a particular policy option, we asked them to explain their reasons for opposing it. We hoped this information could help policymakers determine what diminishes public receptivity to particular types of underage drinking policy initiatives. Finally, wherever relevant, we assessed our findings against the IOM's recommendations, providing a "reality check" for the probability that specific IOM recommendations will be acceptable to the general public.

METHODS

Sampling

We conducted 900 telephone interviews with adults, ages 21 years or older, across the United States between March and April of 2001. In contrast to the sampling procedures of Wagenaar and colleagues (9, 16),

who interviewed individuals ages 18 and older, we elected to interview only those respondents who were at or above the legal drinking age of 21. The survey used a random digit dialing (RDD) design that included both listed and unlisted phone numbers. The average length of the telephone interview was 23 minutes. Prior to data collection, we pre-tested the survey instrument extensively. We conducted a pilot study consisting of 30 interviews from a random sample of adults, ages 21 years and older, in households throughout the United States.

Respondent Characteristics

Half of the 900 survey respondents were female and half had children under the age of 21. Three hundred interviews were completed for each of the three versions of the questionnaire. In addition to basic demographic information, we collected other respondent characteristics that may be related to alcohol-control attitudes, such as political party affiliation and alcohol use. Table 1 provides key information about the characteristics of our sample.

Measures

The survey measured two key sets of information. One explored respondents' attitudes toward underage drinking, including the extent to which it personally concerns them, the extent to which they see it as a problem in their own community, and the best strategy for helping to reduce it. A second explored public attitudes toward a series of potential policy options aimed at reducing underage drinking. We constructed each general policy option in three ways and used one version for one-third of the sample. Each version had the same theme but a different variation on the proposed policy. For example, in presenting undercover strategy policies for controlling underage drinking, one-third of the sample responded to the policy of "compliance checks" (in which youth work undercover and attempt to buy alcohol), another third responded to the policy of "shoulder-taps" (in which youth work undercover and ask adults to buy alcohol for them), and the final third responded to the policy of "cops in shops" (in which undercover police act as sellers in alcohol establishments to catch minors attempting to buy alcohol). For just three of the policy options—zero tolerance policies, restricting home delivery of alcohol, and mandating keg registration—the same version was administered to all the respondents. To reduce order bias, questions about the policies were

TABLE 1

Sample characteristics (N=900)

<i>Demographic Variable</i>	<i>%</i>
<i>Age</i>	
21-34	27.0
35-64	55.9
65+	17.1
<i>Race/Ethnicity</i>	
Caucasian/white	82.1
African-American/black	7.9
Hispanic/Latino	3.6
Asian/Pacific Islander	2.0
Mixed Race/Other	4.2
<i>Education</i>	
Less than High School	6.5
High School Graduate/GED	32.7
Attended College/Technical/Vocational School	27.3
Completed College	22.5
Attended Graduate School	10.9
<i>Income</i>	
Less than \$15,000	10.1
\$15,000-\$29,000	21.6
\$30,000-\$49,000	26.4
\$50,000-\$74,000	23.6
\$75,000+	18.3
<i>Political Affiliation</i>	
Republican party	35.4
Democrat party	35.6
Independent	18.5
No affiliation	10.4
<i>Alcohol Use Frequency</i>	
Seldom/never drink	57.6
Drink a few times a month	24.4
Drink a few times a week	14.4
Drink almost every day/daily	3.0

asked prior to the general attitudinal questions for half of the respondents in each of the three policy version subgroups.

For each policy option, respondents were asked to indicate if they favored having the policy implemented in their community or, if already in place, whether or not they were in favor of it. If respondents indicated that they were not in favor of a particular policy, the interviewer followed up by asking which of the following reasons best represents why they do not support the policy: because of the cost of enforcing it; because it targets or punishes the wrong party; because it unfairly infringes on adults' rights to drink alcohol; because it does not address the problem, meaning the policy is not a logical way to reduce underage drinking; or for some other reason.

Analyses

For the total sample, we present the proportion of participants who reported being in favor of each policy option (or each version of a policy option). Using chi-square analyses, we present variations in support for each policy option by specific respondent characteristics. Finally, using logistic regression analyses, we present the relative importance of specific demographic, behavioral, and attitudinal characteristics in predicting support for each policy.

RESULTS

Attitudes Toward Specific Policies to Reduce Underage Drinking

The majority of respondents were in favor of almost all of the alcohol control policies that were presented to them. Table 2 presents the proportion of respondents who favored each of the versions of a series of policy options.

The IOM report called on alcohol companies, advertising companies, and commercial media to refrain from marketing alcohol in ways that have substantial appeal to underage populations or in places or times of high youth exposure. Consistent with these recommendations, approximately three-quarters of our respondents favored restricting alcohol advertising by banning alcohol sponsorship of youth-oriented events (77%), banning alcohol ads in youth-oriented media (75%), and banning alcohol on billboards where high levels of youth exposure is likely (71%).

For limiting youth access to alcohol, the IOM report recommended using undercover strategies, increasing alcohol taxes, zero tolerance

TABLE 2

Percent of respondents in favor of each version
of each policy option

<i>Policy Option</i>	<i>% In Favor</i>
<i>Undercover Attempts</i>	72.6
Compliance checks (youth working undercover attempting to buy alcohol)	78.1
Cops in shops (police working undercover as salespersons in alcohol establishments)	70.6
Shoulder-taps (youth working undercover asking adults to buy alcohol for them)	69.1
<i>Limit Youth Access to Alcohol Establishments</i>	64.8
Regulate distance of establishments from youth centers	83.2
Limit the number of establishments in a neighborhood	59.8
Limit the hours or days of sale	51.2
<i>Increase Alcohol Taxes</i>	54.1
Apply tax revenue to prevention and treatment	62.8
Apply tax revenue to lower other universal taxes	52.6
Apply tax revenue to general government expenses	46.9
<i>Restrict Alcohol Advertising</i>	74.4
Ban alcohol sponsorship of youth-oriented events	76.9
Ban alcohol ads in youth-oriented media	75.2
Ban alcohol ads on billboards	71.1
<i>Restrict Public Access to Alcohol</i>	63.5
Prohibit sales and use in public places (e.g., parks)	70.1
Prohibit sales and use at family-oriented community events	65.6
Prohibit sales and use at all community events	54.8
<i>Zero Tolerance</i>	78.2
<i>Restrict Home Delivery</i>	85.2
<i>Keg Registration</i>	71.2
<i>Impose Penalties on Parents</i>	72.4
Require community service	85.2
Criminal liability (e.g., probation, jail)	70.4
Civil liability (e.g., lawsuits for damages)	61.3
<i>Impose Penalties on Alcohol Establishments</i>	84.5
Suspend/withdraw liquor license	88.5
Criminal liability (e.g., probation, jail)	82.0
Civil liability (e.g., lawsuits for damages)	83.1

laws, regulating home delivery of alcohol, beer keg registration, and penalizing and holding parents and alcohol establishments responsible for providing alcohol to minors. Providing support for these recommendations, approximately 73% of respondents favored under-cover attempts to reduce underage drinking; 78% zero-tolerance policies, 85% regulating home delivery of alcohol; 71% beer keg registration; approximately 72% imposing penalties on parents who provide alcohol to minors; and 85% imposing penalties on alcohol establishments who do so. Less supportive of the IOM recommendation to increase alcohol excise taxes, only 54% favored this approach. Importantly, support was substantially lower among those respondents who were told that the revenue would be used for general governmental expenses (47%) than among those who were told it would be used for prevention and treatment of underage alcohol use (63%). This suggests that the IOM recommendation may need to be refined to suggest that the tax revenue be directed toward prevention and treatment.

With few exceptions, respondents' main explanation for not supporting a particular policy option centered on their feeling that the policy does not adequately address the problem of underage drinking or that it is not a logical way to reduce underage drinking. The next most commonly cited reason for not supporting a particular policy option was that it targets or punishes the wrong party.

Variations in Support of Alcohol Control Policies by Respondent Characteristics and Attitudes

For the majority of the policy options, generally more support was given by females than by males, by African-Americans than by whites, by those with lower rather than higher incomes, by individuals with less rather than more education, by older than younger adults, and by those who reported drinking alcohol less rather than more frequently. Furthermore, respondents who tended to support the policy options were significantly more likely to report feeling personally concerned about underage drinking and that underage drinking is a problem in their community. Table 3 presents demographic and attitudinal differences in support for the various alcohol control policies (across versions) presented to respondents.

TABLE 3

Percent of respondents in favor of specific underage drinking (UD) control policies by demographic, personal and attitudinal variables (Percent in favor; Chi Square)

Policy	Sex		Race/Ethnicity ^a		Annual Income Level			Education Level	
	Female	Male	African-American	White	<30K	30-75K	>75K	≤High School	>High School
Undercover Attempts	77.2 $\chi^2=9.39^{**}$	68.0	75.4	72.1	72.3	75.1	66.7	78.1	69.2
Limit Access to Establishments	72.5 $\chi^2=22.91^{***}$	57.0	88.7	62.5	77.1	62.1	48.9	70.3	61.4
Increase Alcohol Taxes	59.3 $\chi^2=9.05^{**}$	49.1	64.7	52.2	62.9	52.0	43.3	60.9	49.6
Restrict Alcohol Advertising	80.2 $\chi^2=15.64^{***}$	68.5	85.5	74.6	77.4	73.8	69.1	75.7	73.7
Restrict Public Access	71.9 $\chi^2=26.71^{***}$	55.1	80.0	62.5	73.3	61.5	45.3	70.7	58.9
Zero Tolerance	86.6 $\chi^2=35.14^{***}$	70.0	79.7	77.3	85.2	76.7	63.8	88.5	71.3
Restrict Home Delivery	87.6 $\chi^2=3.88^*$	82.8	87.1	85.8	87.6	88.0	72.3	89.0	82.8
Keg Registration	78.0 $\chi^2=18.83^{***}$	64.6	81.5	69.4	77.2	70.2	60.7	79.1	65.9
Penalize Parents	77.6 $\chi^2=12.19^{***}$	67.1	71.0	72.9	74.4	69.9	67.9	75.4	70.3
Penalize Alcohol Establishments	88.7 $\chi^2=12.01^{***}$	80.3	88.4	83.6	89.3	83.4	78.0	85.0	84.1
				$\chi^2=1.10$		$\chi^2=8.91^*$			$\chi^2=0.12$

NOTE: * = $p < .05$; ** = $p < .01$; *** = $p < .001$.

a. Since the majority of respondents were white, followed by African-Americans, analyses are presented for these groups only.

(Table 3 continued)

Policy	Political Affiliation			Age			Alcohol Use Frequency	
	Republican	Independent	Democrat	21-34	35-54	55+	Never or Seldom	Frequently or Daily
Undercover Attempts	72.5	66.5 $\chi^2=3.99$	75.3	73.4	71.4 $\chi^2=0.44$	73.5	75.5	61.2 $\chi^2=12.99^{***}$
Limit Access to Establishments	66.8	55.9 $\chi^2=5.88$	66.2	57.6	59.0 $\chi^2=32.76^{***}$	78.7	70.1	41.7 $\chi^2=43.97^{***}$
Increase Alcohol Taxes	55.1	48 $\chi^2=3.67$	57.5	51.5	51.4 $\chi^2=5.82$	60.4	59.4	31.6 $\chi^2=38.99^{***}$
Restrict Alcohol Advertising	74.1	73.9 $\chi^2=0.56$	76.5	71.2	75.6 $\chi^2=1.58$	75.2	77.5	60.8 $\chi^2=18.11^{***}$
Restrict Public Access	66.3	56.9 $\chi^2=3.93$	64.1	52.3	60.3 $\chi^2=38.48^{***}$	78.2	69.3	37.9 $\chi^2=53.45^{***}$
Zero Tolerance	80.1	71.3 $\chi^2=4.44$	77.9	76.7	73.8 $\chi^2=11.66^{**}$	85.1	82.3	58.9 $\chi^2=39.90^{***}$
Restrict Home Delivery	85.9	80.6 $\chi^2=5.23$	88.6	77.9	86.4 $\chi^2=14.68^{***}$	89.7	88.1	73.5 $\chi^2=21.52^{***}$
Keg Registration	73.9	60.7 $\chi^2=9.63^{**}$	73.3	66.2	68.1 $\chi^2=13.90^{***}$	79.8	76.0	51.0 $\chi^2=37.99^{***}$
Penalize Parents	79.1	62.3 $\chi^2=15.37^{***}$	69.0	69.1	69.3 $\chi^2=8.87^*$	79.2	74.9	62.1 $\chi^2=10.35^{***}$
Penalize Alcohol Establishments	84.5	80.8 $\chi^2=1.70$	85.5	83.0	83.8 $\chi^2=2.24$	87.4	86.9	73.4 $\chi^2=17.74^{***}$

NOTE: * = $p < .05$; ** = $p < .01$; *** = $p < .001$.

(Table 3 continued)

Policy Regulations	Personal Concern About UD			Perceived Extent of the UD Problem			Best Strategy for Reducing UD		
	Not at All	Somewhat	Very Much	Not at All	Moderate	Very Big	Impose Severe Penalties	Ensure Better Enforcement of Existing Regulations	Implement New Regulations
Undercover Attempts	47.9	67.8 $\chi^2=41.85^{***}$	81.0	63.6	71.1 $\chi^2=8.75^*$	77.7	85.7	71.6 $\chi^2=17.50^{***}$	69.3
Limit Access to Establishments	53.5	54.0 $\chi^2=45.32^{***}$	75.8	60.5	60.4 $\chi^2=13.19^{***}$	73.6	71.6	64.3 $\chi^2=3.31$	64.5
Increase Alcohol Taxes	27.4	46.6 $\chi^2=51.20^{***}$	65.5	45.7	51.3 $\chi^2=15.38^{***}$	64.3	61.2	52.5 $\chi^2=4.06$	54.5
Restrict Alcohol Advertising	51.4	71.3 $\chi^2=30.08^{***}$	80.7	55.0	76.6 $\chi^2=28.34^{***}$	78.4	78.9	74.6 $\chi^2=1.31$	76.0
Restrict Public Access	34.3	54.4 $\chi^2=68.55^{***}$	76.2	47.3	60.8 $\chi^2=29.15^{***}$	74.7	66.3	65.6 $\chi^2=0.69$	62.7
Zero Tolerance	60.3	71.4 $\chi^2=42.23^{***}$	86.8	64.9	76.4 $\chi^2=24.09^{***}$	86.5	90.3	77.3 $\chi^2=16.5^{***}$	76.3
Restrict Home Delivery	73.2	81.5 $\chi^2=20.96^{***}$	90.3	75.9	85.2 $\chi^2=11.33^{**}$	88.8	87.1	85.5 $\chi^2=1.04$	83.5
Keg Registration	50.0	61.9 $\chi^2=59.91^{***}$	83.1	59.8	67.4 $\chi^2=25.28^{***}$	82.2	81.3	69.3 $\chi^2=9.72^{**}$	71.3
Penalize Parents	49.3	67.3 $\chi^2=39.54^{***}$	80.8	65.1	70.0 $\chi^2=7.48^*$	77.5	80.2	74.0 $\chi^2=7.34^*$	68.2
Penalize Alcohol Establishments	68.5	81.4 $\chi^2=27.44^{***}$	90.1	78.4	84.0 $\chi^2=5.46$	87.5	87.2	86.3 $\chi^2=3.68$	81.1

NOTE: * = $p < .05$; ** = $p < .01$; *** = $p < .001$.

Relative Importance of Unique Respondent Characteristics in Predicting Support for the Various Alcohol Control Policies

Since many of the variables used to characterize respondents are collinear, logistic regression analyses were conducted to explore the relative importance of each demographic/personal variable and each attitudinal variable in predicting support for each of the alcohol control policies (across versions).

The demographic/personal variables that were entered into the first set of logistic regression analyses included: *sex*, *race/ethnicity*, *income level*, *education level*, *political affiliation*, *age*, and *reported frequency of alcohol use* (table 4). To simplify the presentation of the results, only those findings related to key sub-categories of certain demographic/personal variables (i.e., race/ethnicity, income, political affiliation, age and alcohol use) are presented. Frequency of alcohol use, followed by age, were the strongest and most consistent demographic/personal predictors of support for the various policies, with less frequent drinkers, and older respondents, likelier to support the policies.

We entered attitudinal variables into a second set of logistic regression analyses, including: extent to which participants are personally concerned about underage alcohol use; perceived extent to which underage drinking is a problem in their community; and perception of the best strategy for reducing underage drinking (*impose more severe penalties on those who violate the regulations vs. implement new regulations*) (table 5). Personal concern about underage drinking was the most influential and most consistent attitudinal predictor of support for the various policies.

DISCUSSION

The findings from this survey indicate that there is strong public support for a broad range of policies aimed at controlling underage drinking. They also demonstrate important variations in support based on how a particular policy option is framed. Further, the data suggest some explanations of why certain policy options are not always viewed favorably. Finally, the findings provide policymakers with information regarding the characteristics of those who tend to favor, or not favor, the implementation or enforcement of alcohol-control policies, helping policymakers identify the base of support for such policies and develop strategies to target more effectively those groups who are less inclined to support them.

TABLE 4

Relative importance of demographic and personal variables in predicting support for each underage drinking (UD) policy (Odds Ratios; 95% Confidence Intervals)

Policy	Sex (Female vs. Male)	Race/Ethnicity ^a (African-American vs. White)	Income Level ^a (≤\$30k vs. ≥\$75k)	Education Level (≤High School vs. >High School)	Political Affiliation ^a (Democrat vs. Republican)	Age ^a (≥55 vs. 21–34)	Alcohol Use Frequency ^a (Never/Seldom vs. Frequent)
Undercover Attempts	1.43 (.98, 2.10)	1.17 (.56, 2.45)	0.92 (.52, 1.61)	1.22 (.81, 1.84)	1.07 (.70, 1.66)	0.90 (.54, 1.49)	2.27** (1.40, 3.68)
Limit Access to Outlets	1.42 (.97, 2.08)	3.55** (1.47, 8.58)	2.46** (1.37, 4.41)	.81 (.53, 1.22)	0.66 (.43, 1.01)	2.99*** (1.75, 5.12)	4.24*** (2.61, 6.91)
Increase Alcohol Taxes	1.17 (.82, 1.67)	1.16 (.59, 2.27)	1.46 (.85, 2.52)	1.20 (.82, 1.75)	0.97 (.65, 1.45)	1.22 (0.76, 1.98)	4.27*** (2.67, 6.83)
Restrict Alcohol Advertising	1.61* (1.08, 2.40)	2.06 (.82, 5.18)	0.94 (.51, 1.72)	0.95 (.62, 1.45)	1.06 (.68, 1.65)	1.22 (.72, 2.06)	2.80*** (1.70, 4.61)
Restrict Public Access	1.74** (1.19, 2.53)	2.50* (1.11, 5.64)	2.81*** (1.58, 5.00)	1.20 (.80, 1.80)	0.63* (.41, .97)	2.95*** (1.76, 4.96)	3.50*** (2.17, 5.65)
Zero Tolerance	2.47*** (1.60, 3.82)	.81 (.37, 1.78)	1.86 (.97, 3.54)	2.52*** (1.53, 4.15)	0.73 (.45, 1.18)	1.15 (.64, 2.06)	3.67*** (2.17, 6.21)
Restrict Home Delivery	.98 (.61, 1.67)	.53 (.21, 1.35)	2.19* (1.09, 4.38)	1.17 (.66, 2.05)	1.33 (.74, 2.41)	2.29* (1.17, 4.47)	3.98*** (2.14, 7.40)
Keg Registration	1.51* (1.02, 2.25)	2.00 (.85, 4.68)	1.26 (.69, 2.30)	1.33 (.86, 2.05)	0.71 (.45, 1.12)	2.15** (1.25, 3.69)	4.80*** (2.91, 7.91)
Penalize Parents	1.44 (.99, 2.09)	1.27 (.64, 2.50)	1.05 (.60, 1.86)	1.15 (.78, 1.71)	0.54** (.35, .83)	1.46 (.89, 2.42)	1.41 (.87, 2.27)
Penalize Alcohol Outlets	1.75* (1.08, 2.82)	1.10 (.46, 2.67)	2.31* (1.11, 4.84)	.75 (.46, 1.23)	0.73 (.43, 1.23)	1.69 (.90, 3.18)	1.99* (1.13, 3.51)

Note: * = $p < .05$; ** = $p < .01$; *** = $p < .001$.

a. Analyses were conducted on all sub-categories within each of these variables (see Table 1); however, for the sake of simplicity and clarity, findings are presented only for those sub-categories that produced important and consistent differences.

TABLE 5

Relative importance of attitudinal variables in predicting support for each underage drinking (UD) policy (Odds Ratios; 95% Confidence Intervals)

Policy	<i>Personal Concern</i>	<i>Perceived Extent of</i>	<i>Best Strategy for</i>
	<i>About UD</i>	<i>the UD Problem</i>	<i>Reducing UD</i>
	<i>(High vs. Low)</i>	<i>(Low vs. High)</i>	<i>(Impose more severe penalties vs. Implement new regulations)</i>
Undercover Attempts	1.92*** (1.46, 2.53)	1.03 (.79, 1.36)	2.64*** (1.56, 4.47)
Limit Access to Outlets	1.79*** (1.38, 2.32)	1.01 (.86, 1.41)	1.23 (.79, 1.92)
Increase Alcohol Taxes	1.93*** (1.50, 2.49)	1.16 (.91, 1.47)	1.30 (.85, 1.99)
Restrict Alcohol Advertising	1.58** (1.19, 2.08)	1.32* (1.00, 1.73)	1.17 (.71, 1.94)
Restrict Public Access	2.24*** (1.71, 2.92)	1.49** (1.16, 1.92)	1.00 (.64, 1.56)
Zero Tolerance	1.80*** (1.34, 2.42)	1.44* (1.07, 1.93)	2.39** (1.32, 4.33)
Restrict Home Delivery	1.56** (1.13, 2.16)	1.35 (.98, 1.87)	1.34 (.74, 2.44)
Keg Registration	2.27*** (1.71, 2.99)	1.28 (.98, 1.68)	1.67* (1.00, 2.78)
Penalize Parents	1.91*** (1.45, 2.51)	1.03 (.79, 1.35)	1.91** (1.18, 3.12)
Penalize Alcohol Outlets	1.87*** (1.35, 2.59)	1.02 (.74, 1.42)	1.59 (.89, 2.85)

NOTE: * = $p < .05$; ** = $p < .01$; *** = $p < .001$.

Public Shows Strong Support for Various Alcohol Control Policy Options

As noted above, we found relatively strong support for most policy options; more by females than by males; by African-Americans than by whites; by older than younger adults; by those with lower income and less education; and by those who drink alcohol less frequently.

Personal characteristics predictive of support. The logistic regression analyses, which pitted the predictive power of the various personal/demographic variables against one another, indicated that frequency of alcohol use was one of the strongest and most consistent predictors of support for the policies, with more frequent drinkers (those who reported drinking a few times a week or more) likelier to withhold support. Age also predicted support, with older respondents demonstrating greater support for policies aimed at restricting underage drinking. These findings are consistent with those of previous surveys (9,17).

We were not surprised by the attitudinal characteristics that predicted different levels of support. Policy option supporters were likelier to report that underage drinking is a problem in their own community and to report feeling personally concerned about underage drinking. The logistic regression analyses indicated that the extent of personal concern about underage alcohol use was the most powerful attitudinal predictor. This suggests that strategies aimed at restricting underage drinking would be easier to sell in communities in which the problem is highly salient and among individuals who already are concerned about it. However, it also suggests that if the public health community is to garner support for regulations—development or enforcement—it may need to educate the public further and impress upon it the risks associated with failing to curtail underage drinking.

Specific framing of policies predictive of greater support. The way in which alcohol control policies or regulations are worded and the specific stipulations they contain can significantly influence public support. On the whole, support was moderate to strong for most of the policy options, but weakest for policies or versions of policies that would result in restrictions on adults' access to alcohol. For example, for the general strategy of limiting youth access to alcohol establishments, survey respondents gave overwhelming support to the idea of regulating the distance of alcohol establishments from places where children congregate, such as schools or playgrounds, but only lukewarm support for limiting the number of alcohol establishments that can exist in any particular neighborhood or limiting the hours or days of the week during which alcohol can be sold. Likewise, for the general policy option of restricting alcohol access in public areas, support was stronger for the option of prohibiting alcohol sales and the drinking of alcohol in public places, such as beaches, zoos, and parks,

than for the option of prohibiting alcohol sales and the drinking of alcohol at community events, such as sporting events, concerts, and fairs. As Wagenaar and colleagues have suggested (9, p. 318), “some respondents may connect drinking in these public places with public nuisances, crime, and high risk drinkers.”

Lower acceptance of policies that restrict adults’ access. Support was relatively low for increasing alcohol taxes, which is consistent with public reluctance to support policies affecting adults’ access to alcohol.

Most of our respondents were much more in favor of reducing underage drinking through better enforcement and more severe penalties than through the implementation of new regulations. Legislators interested in reducing underage drinking may be more effective and gain more public support if they promote, at least initially, the more stringent enforcement of existing underage drinking regulations rather than attempting to draft and promote the passage of new regulations.

Policy Implications

In advancing alcohol use restriction policies, legislators should ensure that the policies are clearly relevant to the goal of reducing underage drinking and demonstrate to adult constituents the value of the restrictions, even those that may impede adults’ access to alcohol.

Our refined findings, based on framing policies in different ways, can help policymakers draft language and specific stipulations to gain the greatest public acceptance and support. For example, policies aimed at limiting youth access to alcohol appear most palatable to adults when they regulate the distance of alcohol establishments from places where youth typically congregate, rather than limit the number of alcohol establishments in a neighborhood or the hours or days in which alcohol can be sold. The public seems more supportive of increases in alcohol taxes if the revenues are directed to prevention and treatment of alcohol abuse rather than to other uses.

Study Limitations

Our study had several limitations. First, findings were based on respondents’ self-reported attitudes, beliefs, and behaviors, always subject to self-presentation (or social desirability) bias (18,19). Not only are respondents frequently hesitant to provide honest responses to questions about sensitive issues, such as alcohol use, but even when

trying to be honest, their responses may not accurately represent their actual beliefs and behaviors. Responding anonymously to questions about whether one would (hypothetically) support a particular alcohol control policy may be different from how one would feel should that policy become a reality.

Second, although we made every attempt to word the policy options and the questions carefully and pretested the survey instrument extensively, the possibility remains that different respondents may have interpreted options and questions in different ways and responded accordingly. Respondents particularly concerned about underage drinking may have paid more attention and given their responses more consideration.

Furthermore, due to time and resource constraints inherent in conducting telephone surveys, important questions and policy options were excluded. Thus certain respondent characteristics, attitudes, or beliefs may not have been reflected in the survey. Importantly, we measured responses to each policy option dichotomously (yes/no in favor of the policy) rather than continuously (the extent to which the respondent favors the policy), preventing us from examining degrees of support for various strategies and forcing respondents to report their opinion in a more absolute manner.

CONCLUSIONS

By showing considerable support among the American public for a broad range of underage drinking control policies our survey findings support and extend those of Wagenaar and his colleagues (9,15-17) and help demonstrate the feasibility of enacting many of the recommendations put forth in the IOM report. This broad support, while varying by demographic and other personal characteristics, and affected by the particular stipulations within the policies, suggests that policymakers may be able to make significant strides in curbing the underage-drinking problem. The findings from this and other surveys might be taken into consideration by policymakers and legislators when determining what sort of strategies would be most acceptable to the general public, which members of the adult public might be counted upon to provide support, and which members might require more convincing. As Latimer and colleagues point out, "Given limited resources, policymakers and advocacy groups cannot afford to make haphazard attempts to mobilize public resources" (17, p. 555). Per-

haps most importantly, given the tremendous social and health consequences of underage drinking, policymakers and advocacy groups cannot afford to be lax in implementing and enforcing realistic and effective alcohol-control policies that can help tackle the number one drug problem among young people.

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ABSTRACT

We conducted a national telephone survey of 900 adults in the United States to examine the attitudes of the adult public regarding underage drinking and a series of alcohol control policies aimed at reducing it. Three versions of the survey instrument were administered, each to one-third of the sample, with the versions varying in the stipulations of the policy options. Results showed high levels of public support for most of the alcohol control policies, with relatively lower support for those that would result in restrictions on adults' access to alcohol. Respondents' support of the policy options was significantly

related to their sociodemographic and attitudinal characteristics, such as sex, age, drinking frequency, and level of concern about underage drinking. The findings provide important guidelines to policymakers interested in garnering support for policies aimed at curtailing underage drinking.